

Datasheet: MCA2694F

Description:	RAT ANTI MOUSE CD8 ALPHA:FITC
Specificity:	CD8 ALPHA
Other names:	LY-2
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	53-6.7
Isotype:	IgG2a
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Mouse		
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide (NaN ₃)		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.5mg/ml		
Immunogen	Mouse thymus or spleen.		
External Database Links	UniProt: P01731 Related reagents		

Entrez Gene:[12525](#) Cd8a [Related reagents](#)

Synonyms	Lyt2, Lyt-2
Specificity	Rat anti Mouse CD8 alpha antibody, clone 53-6.7 detects mouse CD8a, also known as Lyt-2. CD8α is the alpha chain of the CD8 antigen. CD8 is expressed on T-cells, and exists either a homodimer composed of two alpha chains, or a heterodimer composed of one alpha and one beta chain. CD8 functions as a co-receptor with the T-cell receptor and mediates efficient cell to cell interactions within the immune system. The CD8 alpha chain specifically binds to class I MHC molecules. Rat anti Mouse CD8 alpha antibody, clone 53-6.7 has been reported to block antigen presentation via MHC class I and inhibit T cell responses to IL-2. Rat anti Mouse CD8 alpha antibody, clone 53-6.7 has also been used for depletion of CD8a⁺ cells.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10⁶ cells in 100ul. The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR (BUF041A/B).
References	1. Takahashi, K. <i>et al.</i> (1992) CD4 and CD8 regulate interleukin 2 responses of T cells. Proc Natl Acad Sci U S A. 89 (12): 5557-61. 2. Shore, D.A. <i>et al.</i> (2008) The crystal structure of CD8 in complex with YTS156.7.7 Fab and interaction with other CD8 antibodies define the binding mode of CD8 alphabeta to MHC class I. J Mol Biol. 384 (5): 1190-202. 3. McDole, J.R. <i>et al.</i> (2010) Rapid formation of extended processes and engagement of Theiler's virus-infected neurons by CNS-infiltrating CD8 T cells. Am J Pathol. 177 (4): 1823-33. 4. Zhang, M.Z. <i>et al.</i> (2015) Inhibition of cyclooxygenase-2 in hematopoietic cells results in salt-sensitive hypertension. J Clin Invest. 125 (11): 4281-94. 5. Johnson, H.L. <i>et al.</i> (2014) Perforin competent CD8 T cells are sufficient to cause immune-mediated blood-brain barrier disruption. PLoS One. 9 (10): e111401. 6. Schuster, C. <i>et al.</i> (2013) A missing PD-L1/PD-1 coinhibition regulates diabetes induction by preproinsulin-specific CD8 T-cells in an epitope-specific manner. PLoS One. 8 (8): e71746.
Further Reading	1. Jabbari, A. & Harty, J.T. (2006) The generation and modulation of antigen-specific memory CD8 T cell responses. J Leukoc Biol. 80 (1): 16-23.
Storage	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. This product is photosensitive and should be protected from light. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: 10041: https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf

Related Products

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:FITC \(MCA1212F\)](#)

Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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